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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/490,259	01/24/2000	G. William Ragland	002004-219	6933

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EXAMINER

COMPTON, ERIC B

ART UNIT PAPER NUMBER

3726

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/490,259

Applicant(s)

RAGLAND ET AL.

Examiner

Eric B. Compton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 16-22 and 54-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 16-22 is/are allowed.
- 6) ☒ Claim(s) 54-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on August 16, 2002, has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 54, 55, 56, 57, 60, 61, 63, 64, and rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,647,435 to Nonnenmann.

Regarding claims 54, and 63, Nonnenman discloses a method of forming a multilayered foil product by providing a continuous stack of metal foil layer (see Figure 5, and 4). Nonnenmann discloses "folding the individual layered in a zigzag pattern" (col 1, lines 65-66) and "To simplify the manufacturing process, the sheets utilized for

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forming the matrix are provided with preweakened buckling zones at the folding cites by, for example, perforations in the sheet material. Thus production of a matrix according to this invention wherein the individual layers are folded over, for example, in a zigzag pattern, can be achieved in the same manner as an endless length of computer paper is folded after exiting from a printer when it is dropped vertically into a chute or other paper receiving apparatus" (col 2, lines 7-16). Figure 4, can be considered a z-fold stack.

Regarding claims 55, and 56, Nonnenmann discloses that layer (1) has slots (2) formed therein. This can be considered a previously patterned metal foil layer. Likewise, both layers (1, 1') are flat layers.

Regarding claims 57, and 64, Nonnenmann provides a corrugated layer (3).

Regarding claim 60, Nonnenmann, discloses the creasing sites (9) are only at the edges of the stack.

Regarding claim 61, Nonnenmann discloses perforations may be used. Perforations are a plurality of points across the width of the sheet (see Figure 9).

Claim Rejections - 35 USC ' 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

5. Claims 67-69, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,348,450 to Shaw in view of US Patent 4,748,792 to Jeffrey.

Shaw discloses a method for forming multilayered metal foil parts (see Figure 1). As shown in Figure 1, a continuous previously pattern multilayered stack of space apart metal foil layers is formed on a roll (36). It is disclosed, "the present invention can be supplied in sheets, rolls, or pieces cut to a desired shape" (col 1, lines 41-43).

However, Shaw does not disclose that the material is supplied from a z-fold.

Jeffrey discloses a method for forming package articles. The stock material can either be supplied to the forming apparatus in rolls or from a z-fold stack. Jeffrey suggests supplying material from either a roll or z-fold are analogous methods for storing continuous supplied material.

Regarding claim 67, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to have supplied the previously pattern multilayered material of Shaw from a z-fold stack, in light of the teachings of Jeffrey, in order to maintain the sheets in a flat configuration for more efficient packing in a container (e.g. bin (72)).

Regarding claim 68, Shaw discloses that layer (48) is corrugated cardboard. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a corrugated metal layer, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its

suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 69, Shaw disclosed that layer (44) is a fiber layer.

6. Claims 58, 65, and 62, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,647,435 to Nonnenmann.

Nonnenmann discloses the invention cited above, but not all the particulars claimed by Applicant.

Regarding claims 58, and 65, Official Notice is taken that fiber layers are known to be associated with multilayered metal products in the art. Therefore, it would have been obvious to provided the product of Nonnenmann with a fiber layer, in light of the teachings of the Official Notice taken, in or to produce products similar in construction as those known in the art.

Regarding claim 62, Nonnenmann discloses providing perforations in the internal layer (3) and therefore not necessarily only the top layer. However, a skilled artisan would be able to select the creasing wherever to make folding more efficient, in light of the teachings of Nonnenmann and to do so does not constitute an inventive step.

7. Claims 59, 66, and 72-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nonnenmann in view of DE 198 03 837 ('837).

Nonnenmann discloses the invention above. However, he does not explicitly disclose scoring using rotating members having male and female positions nor periodically rotating the members.

DE '387, Figure 2a, 2b shows folding a multi-layer foil using rotating members (10,10') having male and female positions. It is inherent that the creasing means of DE '387 are periodically rotated to form the stack.

Regarding claims 59, 66, and 72, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have performed the method of Nonnenmann using by rotating creasing members, in light of the teaching of DE '387, in order to provide high speed stacking (see Derwent English Abstract).

Regarding claims 73-74, Nonnenmann discloses that layer (1) has slots (2) formed therein. This can be considered a previously patterned metal foil layer. Likewise, both layers (1, 1') are flat layers.

Regarding claim 75, Nonnenmann provides a corrugated layer (3).

Regarding claim 76, Official Notice is taken that fiber layers are known to be associated with multilayered metal products in the art. Therefore, it would have been obvious to provided the product of Nonnenmann with a fiber layer, in light of the teachings of the Official Notice taken, in order to produce products similar in construction as those known in the art.

8. Claims 70- 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw/Jeffrey as applied to claim 67 above, and further in view US Patent 4,218,962 to Cunningham et al.

Shaw/Jeffrey disclose the invention above. However, they do not disclose horizontal or non-vertical folding.

Cunningham et al disclose horizontal and non-vertical folding, as shown in Figure 8.

Regarding claims 70-71, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have performed the method of Shaw/Jeffrey by performing horizontal or non-vertical folding, in light of the teachings of Cunningham et al, in order to form stacks having a horizontal orientation such that they do not stand as tall as a vertical stack.

Allowable Subject Matter

9. Claims 1-9 and 16-22 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or suggest a method of forming a multilayered metal foil product; comprising providing a continuous stack of metal foil layer, separating the layers, recombining the layers, and forming and cutting individual products, in combination with the other claimed subject matter. Based on the specification a stack is disclosed to comprise z-folds (or zigzags) as shown in reference numeral (23) in Figure 1.

Response to Arguments

11. Applicant's arguments filed August 16, 2002, have been fully considered but they are not persuasive.

Applicant's arguments are moot with respect to the new grounds of rejections.

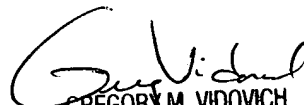
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (703) 305-0240. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory M. Vidovich can be reached on (703) 308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.


ebc
October 18, 2002


GREGORY M. VIDOVICH
PRIMARY EXAMINER